SIEMENS

MammoReport Plus

[redacted] CS

Service Instructions SP018/04/I

Title: Update to SW-Version VA20J for W8000

Reason for update:		☒ Infrequent Service	
Urgency:	☐ Immediate	☒ Within	12 months
Materials for classic update handling required?	☒ Yes	☐ No	
Remote update handling feasible?	☐ Yes without CSE	☐ Yes, with CSE	☒ No
File download available?	☐ Yes	☒ No	
Materials free of charge?	☐ Yes	☒ No	
Return of parts?	☐ Yes	☒ No	
Estimated completion time:	2,5h	Number of CSE's:1	
Customer application training?	☐ Yes	☒ No	

Systems/Products affected/System identifying IVK

Name	Material No.	Serial No.
MammoReport plus	6624006	1001 - 1024

Remark:

Components affected/to be modified

Name	Material No.	Serial No.	Component status Affected
n. a.	n. a.	n. a.	n. a.

Remark:

Chg. Ref. No.: 137581
Name: S. Welker
Dept.: CS PS 24

© Siemens AG 2004
The reproduction, transmission or use of this document or its contents is not permitted without express written authority. Offenders will be liable for damages. All rights, including rights created by patent grant or registration of a utility model or design, are reserved.

Document Revision Level

This document corresponds to the version/revision level effective at the time of system delivery. Revisions to hardcopy documentation are not automatically distributed.

Please contact your local Siemens office to order current revision levels.

Disclaimer

The installation and service of equipment described herein is to be performed by qualified personnel who are employed by Siemens or one of its affiliates or who are otherwise authorized by Siemens or one of its affiliates to provide such service.

Assemblers and other persons who are not employed by or otherwise directly affiliated with or authorized by Siemens or one of its affiliates are directed to contact one of the local offices of Siemens or one of its affiliates before attempting installation or service procedures.

Systems/Products Affected

This instruction applies to existing installations of SW versions

- MBC-SCR-1-2-3 / VA20D
- MBC-SCR-1-2-5 / VA20F
- MBC-SCR-1-2-7 / VA20H

to be updated to MBC-SCR-1-2-9 / VA20J.

Reason for the Update

This instruction covers the following items for a complete and correct installation.

- New SQL Database and a few change requests

Follow the complete instructions carefully.

Special Tools / Documents

n.a

Ordering Information

The following update kit has to be ordered from CSML (SAP Distribution Channel, factory 2050) or BU Logistics (factory BU) (only with an order via BU Logistics):

Update Kit 84 00 645 **(Material Number)**

List the system Serial Number on the order!

Contents of the Update Kit

Update kit **84 00 645** contains the following parts:

Pos.	Quan.	Material No.	Name
1	2	84 00 629	Update-CD VA20J/W8000
2	1	SPB7-420.04.01.	Service Instruction SP018/04/I
3	2	n. a.	empty CDs

Tab. 1

Based on the above description, the CSE should be able to check the update kit for completeness prior to beginning the update.

Return of Parts

The following parts must be returned:

n. a.

Work Steps

The following instruction describes the procedure to upgrade from SW version **VA20** (VA20D / F or H) to **VA20J** on a W8000 system.

Step 1: Prerequisites

1. Login as **service** and select **Administration**.
2. Click on **DICOM** tabcard and write down the following entries**.**

This Workstation	
SCR System	
PACS 1	
PACS 2	
Printer	

3. If values shall be kept, but no migration will be performed (see Appendix)

DICOM Entities	**AET**	**IP address**	**Port**

DICOM Printer	**DMax**	**Portrait matrix**	**Landscape matrix**	**Graylevel**

4. Exit **Administration** and **Exit to Windows**.
5. Double click on shortcut **Taskbar ON**.
6. Connect LCD monitor to PC and turn on the monitor.

Step 2: Note Operating System Settings (Network/Paper Printer)

Network Settings

1. Log in as Windows Administrator.
2. On Windows desktop, right-click on the **My Network Places** icon to open its context menu.
3. Select **Properties** in the context menu.
   Result: The **Network and Dial-up Connections** window displays.
4. Right-click on the **Local Area Connection** icon to open its context menu.
5. Select **Properties** in the context menu.
   Result: **The Local Area Connection Properties** window displays.
6. In the **Components checked are used by this connection** list, doubleclick on **Internet Protocol.**
   Result: The Internet Protocol (TCP/IP) Properties dialog box displays.

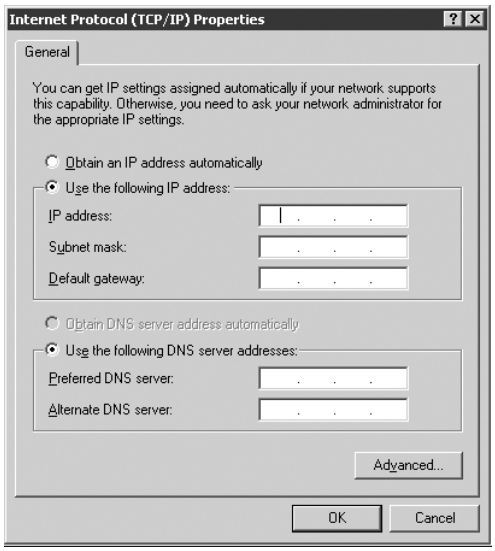
Internet Protocol (TCP/IP) Properties
General
You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.
Obtain an IP address automatically
Use the following IP address:
IP address:
Subnet mask:
Default gateway:
Obtain DNS server address automatically
Use the following DNS server addresses:
Preferred DNS server:
Alternate DNS server:
Advanced...
OK
Cancel

Fig. 1 Internet Protocol (TCP/IP) Properties dialog box.

7. Write down the displayed settings.

Parameter	Configuration
Host name	
IP address	
Subnet mask	
Default Gateway	
Domain/Workgroup	
Preferred DNS Server	
Alternate DNS Server	

Host name and Workgroup

1. On Windows desktop, right click on **Settings\Control Panel\System**. The **System Properties** dialog opens.
2. Select the **Network Identification** tab.

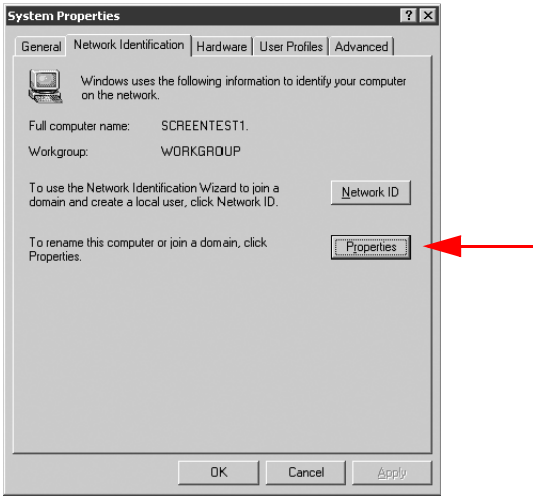

Fig. 2 System Properties

3. Click on **Properties**. The **Identification Changes** window opens.

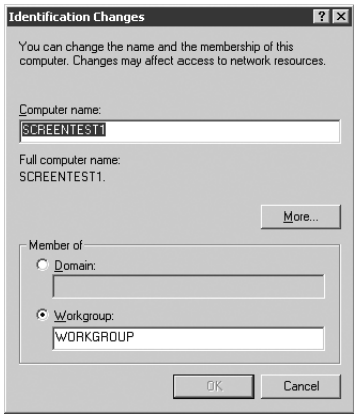

Fig. 3 Identification Changes window

Paper Printer

Only necessary if reporting setting is

- Closing a case with report or
- BI-RADS

1. Click on **Start** in Taskbar.
2. Select **Settings-> Printers.**
3. Open with right mouse the context menu and select **Properties**.
4. Write down printer name and information needed to re-install.

Step 3: Prepare the Backup

1. Create a new directory **backup** on F:\
2. Run program **BackRes.exe** from **E:**.
   A window pops up – without any entries .

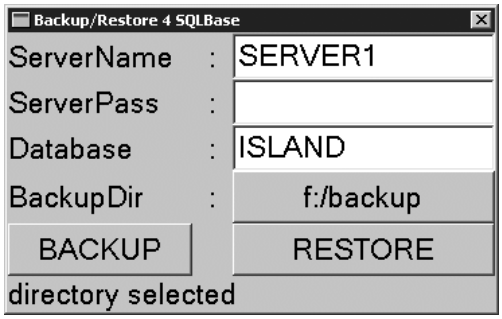

Fig. 4 Window for Backup/Restore 4 SQL Base

3. Make entries as shown in Fig. 4 and click on **BACKUP**.
   A warning message appears.

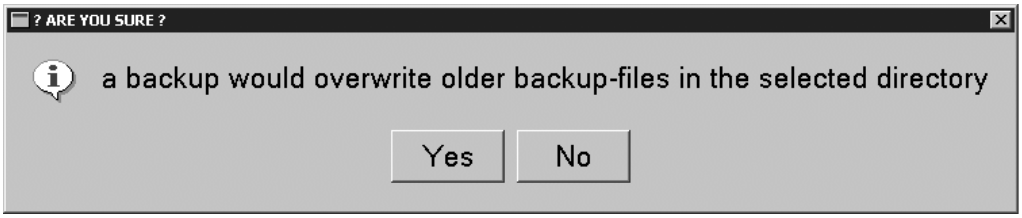

Fig. 5 Warning message: Overwriting older backup files

4. Confirm with **Yes**.
5. After successful backup the status **backup performed** appears.

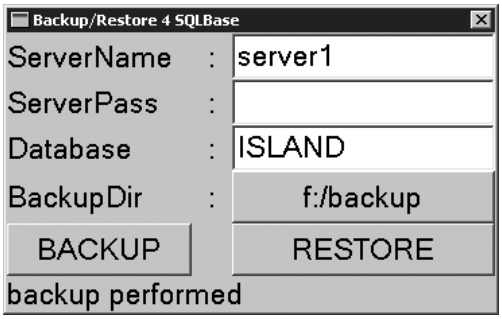

Fig. 6 Status Message Backup performed

6. Close the Backup window. The window disappears.

Step 4: Copying Files to Drive F:

1. Copy the following directories from **E:\ to F:** into the directory **backup**
   - UserPrefs
   - Reports
   - Miniaturen
2. Copy the following files from **E:\ to F:** into the directory **backup**
   - licenses.dat
   - lightbox.ini
   - IgnorePatientOrientation.ini
   - DicomMediator.ini
3. Empty recycle bin.

Step 5: Saving Backup Data

To avoid loss of data (e.g. in case of hard disk failure), the user may want to save the backup directory on another medium (e.g. CD-ROM or USB stick).

Step 6: Change BIOS Settings

To start installation from CD the boot order in BIOS settings must be changed first.

- **Enable** “Boot from removable Media”.

NOTICE	**Disable Boot order after making a recovery CD of new installation.**

To set desired boot order follow the steps below:

1. Reboot the workstation: Click **Shutdown**, then select **Restart**.
2. Press **<F10>** key to enter **Setup**.
3. Set Boot Password. Enter old password and press tab to leave new password empty (no password).
4. Select **Language** and press **<Enter>** key.
5. In **Storage** menu select **Boot Order**.
6. In **Boot Order** dialog box, make changes according to Tab. 1 below. Press **<F10>** key to accept.
7. Set BIOS password if not already set. The BIOS password can be found on the Intranet.
8. In **File** menu select **Save Changes and Exit.**
   Result: The system restarts.

BIOS Setting	from	to	for
Start from IDE CD-ROM:	Disabled	Enabled	Installation from CD-ROM drive

Tab. 1 Boot settings from Removable Media

Step 7: Installation of new SW Version (Ghost and Ghostwalker)

Two installation CD are necessary for the installation of the MammoReport^{Plus} software

NOTE	**The Ghost software licences are only valid for computers where MammoReport^{Plus} software has to be installed. Do not use the software on other computers.**

1. Boot PC. During booting process insert **CD-ROM 1** into the CD-ROM drive to boot directly from the CD.
2. A boot menu appears on the screen.
   The menu consists of three steps:
   Microsoft Windows 98 Startmenü
   1: GDisk (first step, cleans the first disk (system and application))
   2: Ghost (second step, used for installation of C: and E:)
   3: Ghostwalker (third step, used for making this computer unique)
3. Start with **GDisk** (step 1) and press **<Enter>**.
4. This process will run automatically and reboot the computer. The boot menu appears again.
5. Select **Ghost** (step 2) to start the ghost installation procedure automatically.
6. When asked for next CD, insert **CD-ROM 2**.
7. When **Ghost** ends, a message* or prompt C:\> appears and system holds.Then insert **CD-ROM 1** and press Ctrl+Alt+Delete. The PC will be rebooted.
   **Message*
   “Allgemeiner Fehler beim Lesen von Laufwerk A:
   Command.com ist ungültig
   Geben Sie den Namen des Befehlsinterpreters ein (z.B. C:\COMMAND.COM) >>”
8. The boot menu appears again.
9. Now choose **Ghostwalker** (step 3) and confirm with **<Enter>**. Ghostwalker starts and ends with reboot of PC. During reboot remove **CD-ROM 1**.

Step 8: Checking Drive Assignments

This step is to ensure that the drives are properly assigned.

1. Switch on the computer.
   If both high-resolution Simomed monitors are turned on, the Windows user interface will be displayed.
2. Wait 20 - 30 seconds, then the Windows message “System Settings Change” is viewed.
3. Click on **Yes** to restart the PC.
4. Login as **Administrator**.
   By default the partitions should be:
   - System (C:)
   - Compact Disc (D:)

- Application (E:)
- Data (F:)

5. Make sure the **CD ROM drive** is assigned to D:\, and the **Application drive** shall be assigned to E:\.

NOTE

If the drive letters for Compact Disc (D:\) and Application (E:\) are interchanged, then select Disk Manager to change the drive letters manually in path: "Computer Management/Storage/DiskManagement".

Step 9: Importing Foreign Disks

If drive **F:** is not present, it is necessary to import the dynamic disk arrays. The following steps have then to be done manually:

1. Select on desktop **My Computer** and click right mouse button.
2. Select Dialog Manage/Storage/ **Disk management**.
3. Select disk **F:** (named with Foreign) and click right mouse button.
4. A menu pops up, select therein **Import Foreign Disks**.

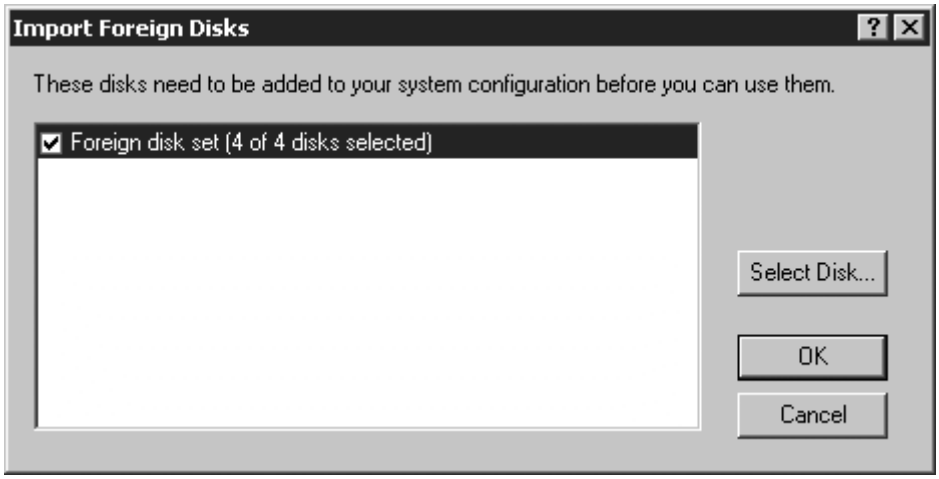
Import Foreign Disks
These disks need to be added to your system configuration before you can use them.
Foreign disk set (4 of 4 disks selected)
Select Disk...
OK
Cancel

Fig. 7 Import Foreign Disk (sample for W8000with 4 data disks)

5. A foreign Disk Set will be displayed, then click **OK** to verify the volume.
6. A new dialog **Verify Volumes** pops up.

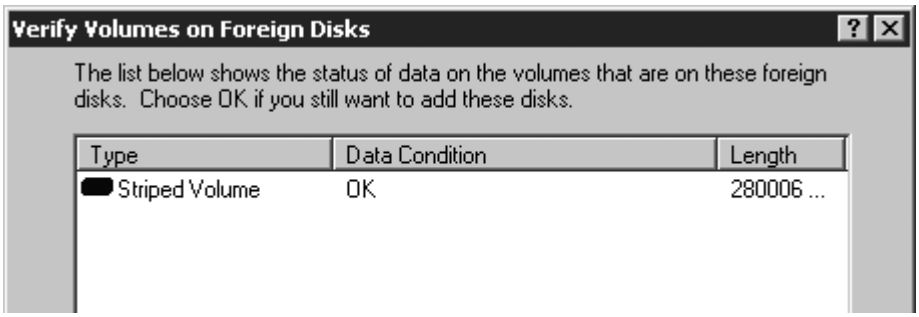
Verify Volumes on Foreign Disks
The list below shows the status of data on the volumes that are on these foreign disks. Choose OK if you still want to add these disks.
Type
Data Condition
Length
Striped Volume
OK
280006 ...

Fig. 8 Verified volume

7. Confirm with **OK**.

8. After that all striped disks should be renamed from Foreign to **Online**.
9. Close Computer Management.

Step 10: Re-enter Operating System Settings

Re-enter settings noted in Step 2: Note Operating System Settings (Network/Paper Printer).

Increasing the mouse pointer

To increase the size of the mouse pointer, perform the following steps:

1. Click Start button and select Settings/Control Panel.
2. Double click on Mouse to open the Mouse Properties.
3. Select the Pointer tab to change the size of the mouse pointer.

NOTE	**If the name of the computer has been changed, you must reboot the system.**

Step 11: Database settings

1. Make Server Console (Monitor) visible.

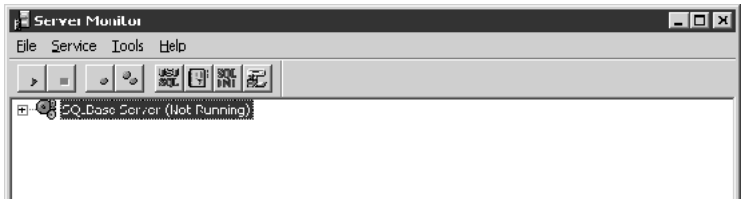

Fig. 9 Server Monitor (Server is running)

2. Click on **Start** button and select **Programs >Centura> SQLBase 7.6.1> SQLBaseServer Monitor.**

Fig. 10 Server Monitor (Server not running)

NOTE **In case the Server Monitor looks like Fig. 10, click the Start button (first button in the toolbar) to start the Server.**

1. In the window that pops up click on the plus sign in front of **SQLBase Server** and select **Service** by clicking the plus sign.

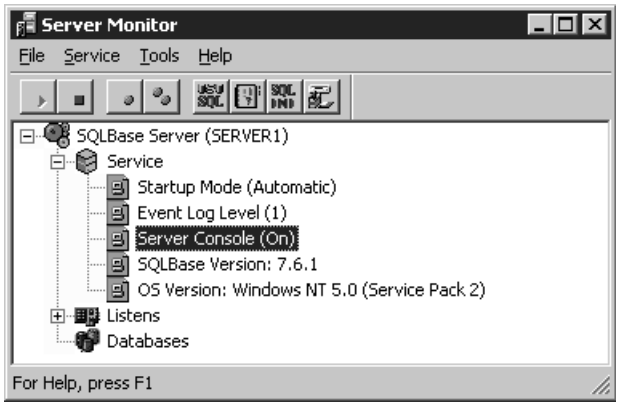

Fig. 11 Server Monitor Server Console On

2. Now set a password to the Database: Select the entry **Security** from the visible **SQLBaseServer (Client)**.

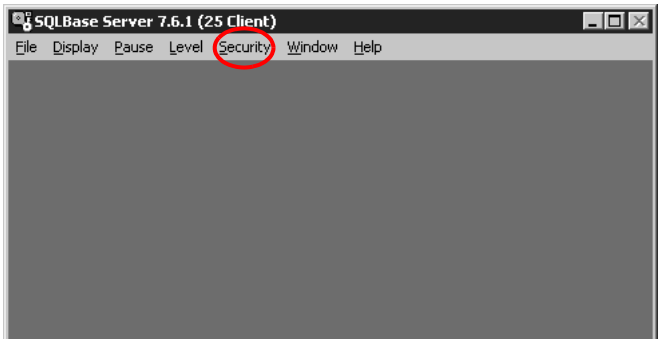

Fig. 12 Entry Security in SQLBaseServer

3. Select entry **Set Security Password** in the menu.
4. Enter **BreastCare** twice and confirm with **OK**

Set Security Password
WARNING: Make sure you remember this server security password. If you forget this password, you will no longer be able to access encrypted databases.
After entering this password, you must use the ALTER DBSECURITY statement to encrypt a database and set the database key. The database key is not required to access the database.
Server Security Password:
Re-Enter Password:
OK
Cancel

Fig. 13 Set Security Password

5. Now the password is set.

NOTE	**Only the password BreastCare is valid.**

6. Then turn the Server Console **Off** by right click.

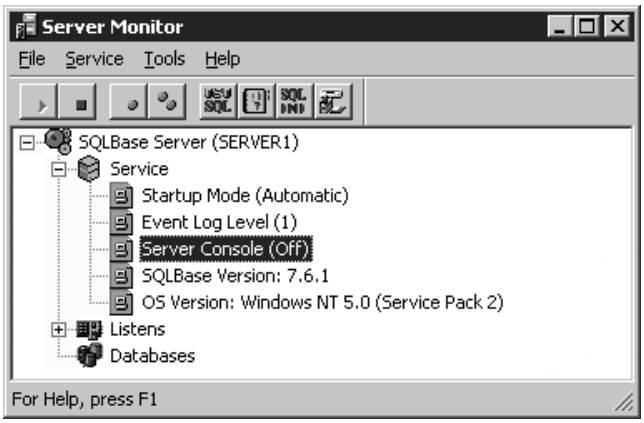

Fig. 14 Server Monitor: Server Console Off

7. Close or minimize the window Server Monitor

NOTE	**The window Server Client will disappear after rebooting (but don't reboot now).**

Step 12: Encrypting the database

1. Check that SCR software has access to Database: Use either the shortcut **CheckODBC** on the desktop or on disk Application (E:) the program **CheckODBC_SQLBase.exe.**
2. a) If the connectivity test ends with FINISHED, the check is ok (refer to Fig. 20).

   b) If the connectivity test ends with an error (see Fig. 15), enlarge the window (see Fig. 16) and check that the connectivity test was successful, and checking all tables up to entry "patdemograhic" did not fail.

   Checking entry "struct_report" may give a failure (Table has not been created), but this is sufficient for this test.

Fig. 15 Check: Access to database

Fig. 16 Enlarged window :

3. Close the window CheckODBC.
4. Use either the shortcut **Cypher** on the desktop or the program **Cypher_SQLBase.exe** on disk E:\ (Application).
5. Wait a few seconds after starting **Cypher** until the message “cypher has finished” appears.

This message appears if database is successfully encrypted.

This message appears if encrypting failed.

Fig. 17 Cypher message

NOTE	**The message “Cannot cypher” appears if:** **a) Cypher was run successful beforehand (database is already encrypted) or** **b) Password was not set. Repeat from beginning of Step 12: Encrypting the database.**

6. Close the message window and open again or maximize the window Server Monitor.
7. Then stop database. Click the **Stop** button as shown in figure below.

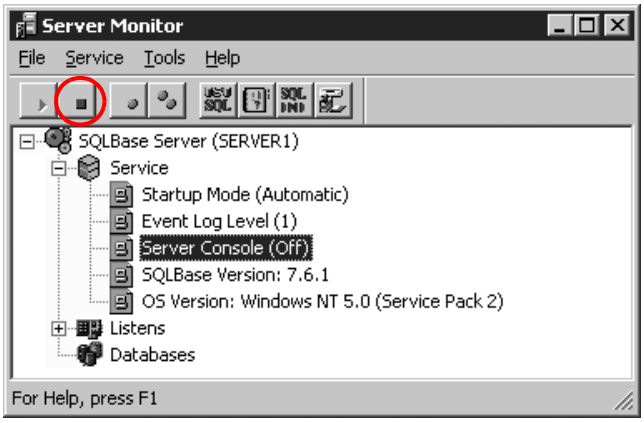

Fig. 18 Stop database

8. Check that SCR software has **NO** access to Database (because password has to be entered after restarting the computer): Use either the shortcut **CheckODBC** on the desktop or on disk Application (E:) the program **CheckODBC_SQLBase.exe.**
9. If the connectivity test ends as shown in the figure below, the encrypting was successful. When done close CheckODBC.

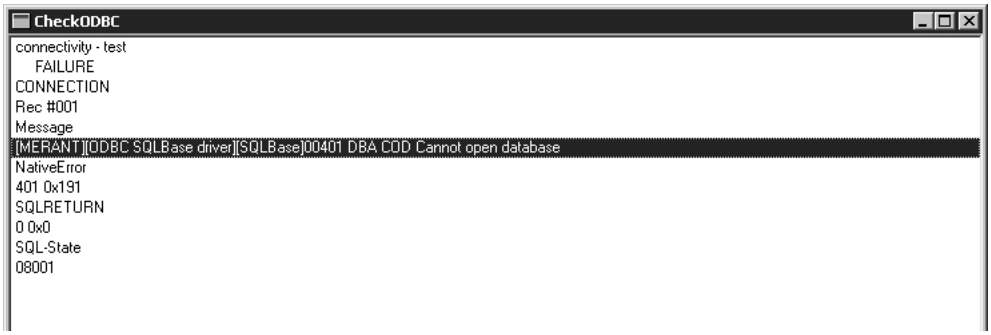

Fig. 19 Check ODBC

Step 13: Starting database

Use either the shortcut **Start Database** on the desktop or on disk E:\ (Application) the program **StartDatabase_SQLBase.exe.**

1. Check that SCR software has access to Database:
   Use either the shortcut on the desktop **Check ODBC** or on disk E:\ (Application) the program **CheckODBC_SQLBase.exe**. The check must be successful as shown in figure below or checking entry “Struc_report” may give a failure (refer to Fig. 15 and Fig. 16).
2. When done close CheckODBC.

NOTE	**If the check failed, run StartDatabase_SQLBase.exe again and then CheckODBC_SQLBase.exe.**

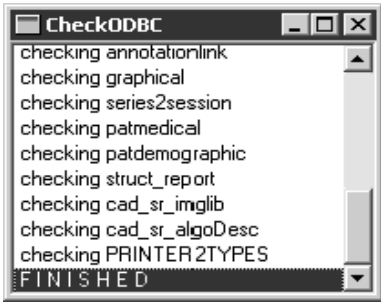

Fig. 20 Check: Access to database

Step 14: Restore your backup

1. Run the program **E:\BackRes_SQLBase.exe**
2. Select the backup directory from disk **F:\backup.**
   A window pops up.
3. Enter data as shown.

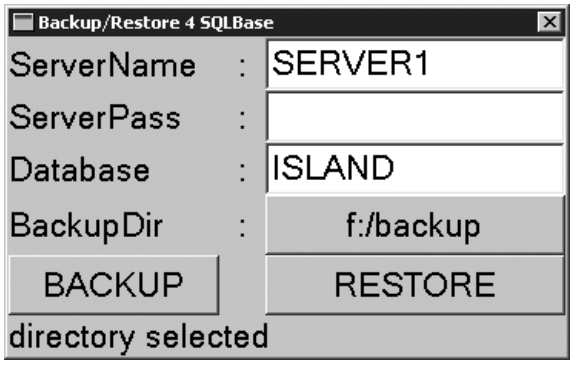

Fig. 21 Selected directory for restore.

4. Select **Restore** and accept the message by clicking **Yes.** .

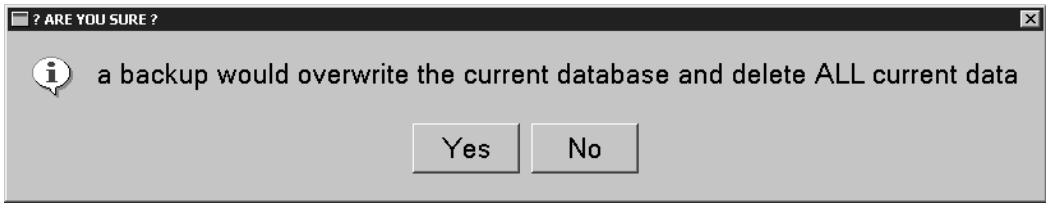

Fig. 22 Warning message: Overwriting All current data

5. After a successful restore the following message appears.

Fig. 23 Message: Restore performed

6. Confirm with **OK.**
   The window looks like the following figure:

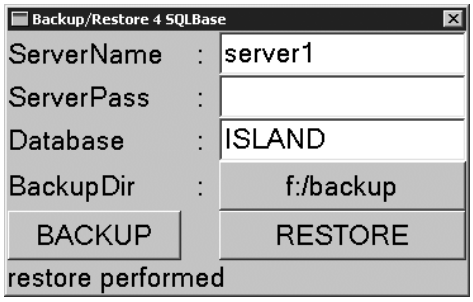

Fig. 24 Restore performed

7. Close the window.

Step 15: Migration of Database

NOTE	**In case the customer does not want to migrate his existing database refer to section "Setup of new Database" in Appendix Part 1.**

1. Run the program E:\Migrator.exe

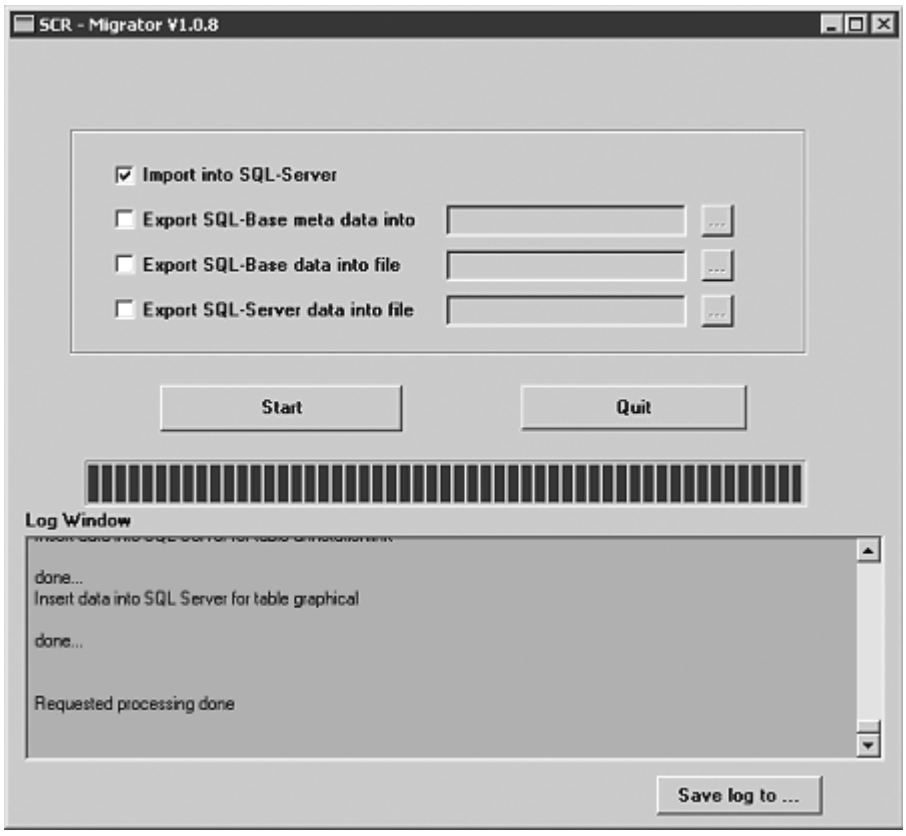

Fig. 25 Interface of Database Migrator

2. The checkbox "Import into SQL Server " is automatically checked. Click on **Start.**
3. Wait until message "Requested processing done" is displayed in the Log Window.
4. Check that no message "Cannot double insert into table ... " is displayed in Log Window. Use the scrollbar.
5. If failed, quit Migrator and run the following batches (refer to Appendix, Part 2, A and B):
   • E:\Scripts\DropDatabase.bat (enter password **BreastCare**)
   • E:\Scripts\CreateDatabase.bat
   • then redo **Step 15: Migration of Database**.
6. If successful, quit Migrator.

Step 16: Restore and Migrate Deleted Patients

The following gives you information how to restore and migrate patients that had been deleted permanently from Database.

NOTE **If the customer has made a series of backups before deleting patients permanently from the Database, perform the following procedure one after another, starting with the most recent one to the oldest backup.**

For manual Backups perform procedure A, for CD-Backups perform procedure B.

A. From Backups that are made manually with BackRes.exe

1. Run the program **E:\BackRes_SQLBase.exe**.
2. Select the directory from disk F:\ where the old backup is located. A window pops up.
3. Enter data as shown in Fig. 21
4. Select Restore and accept the message (Fig. 22) by clicking **Yes**.
5. After a successful restore the message (Fig. 23) appears.
6. Close the window.
7. Run the program **E:\Migrator.exe.**
8. The checkbox "Import into SQL Server " is automatically checked. Click on **Start**.
9. The Migrator displays messages "Cannot double insert into table...." (see Fig. 26) many times for data that were not deleted.
10. Wait until message "Requested processing done" is displayed in the Log Window.
11. Quit Migrator.

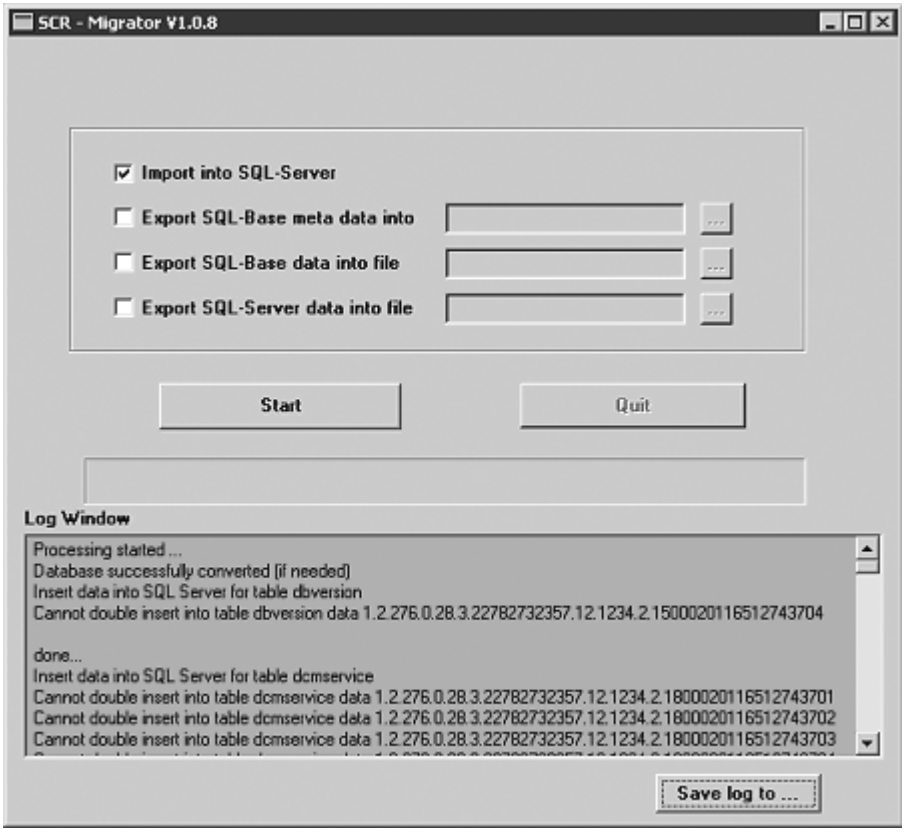
SCR - Migrator V1.0.8
Import into SQL-Server
Export SQL-Base meta data into
Export SQL-Base data into file
Export SQL-Server data into file
Start
Quit
Log Window
Processing started ...
Database successfully converted (if needed)
Insert data into SQL Server for table dbversion
Cannot double insert into table dbversion data 1.2.276.0.28.3.22782732357.12.1234.2.1500020116512743704
done...
Insert data into SQL Server for table dcmservice
Cannot double insert into table dcmservice data 1.2.276.0.28.3.22782732357.12.1234.2.1800020116512743701
Cannot double insert into table dcmservice data 1.2.276.0.28.3.22782732357.12.1234.2.1800020116512743702
Cannot double insert into table dcmservice data 1.2.276.0.28.3.22782732357.12.1234.2.1800020116512743703
Save log to ...

Fig. 26 User Interface

B. From Backups that are made on CD with MammoReport Functionality "Backup Database"

1. Insert the Backup CD into the CD-ROM of your notebook.
2. Open the Windows Explorer. The file " DATABASE.MBC" is displayed.
3. Select the file and click right mouse button. Select "Open with..."
4. Select the program WINZIP.
5. Program Winzip is displayed with an archive containing **at least one** log file and a file **island.bkp** with a plus beside. As well a comment window is shown, containing "BACKUP FILE FROM MAMMOREPORT...." (see Fig. 27. (1) and (2))
6. Close the Comment window.
7. Select Extract from the winzip menu.
8. Create a directory on your notebook and select this directory.
9. Click "Extract". A window to enter a password is displayed (see Fig. 27 (3)).
10. Enter the password "aabzgtehgfokkuu" and select OK.
11. Make sure that **all** contained files are extracted to the selected directory.
12. Transfer the directory to the MammoReport PC onto drive F:\.
13. Run the program E:\BackRes_SQLBase.exe.

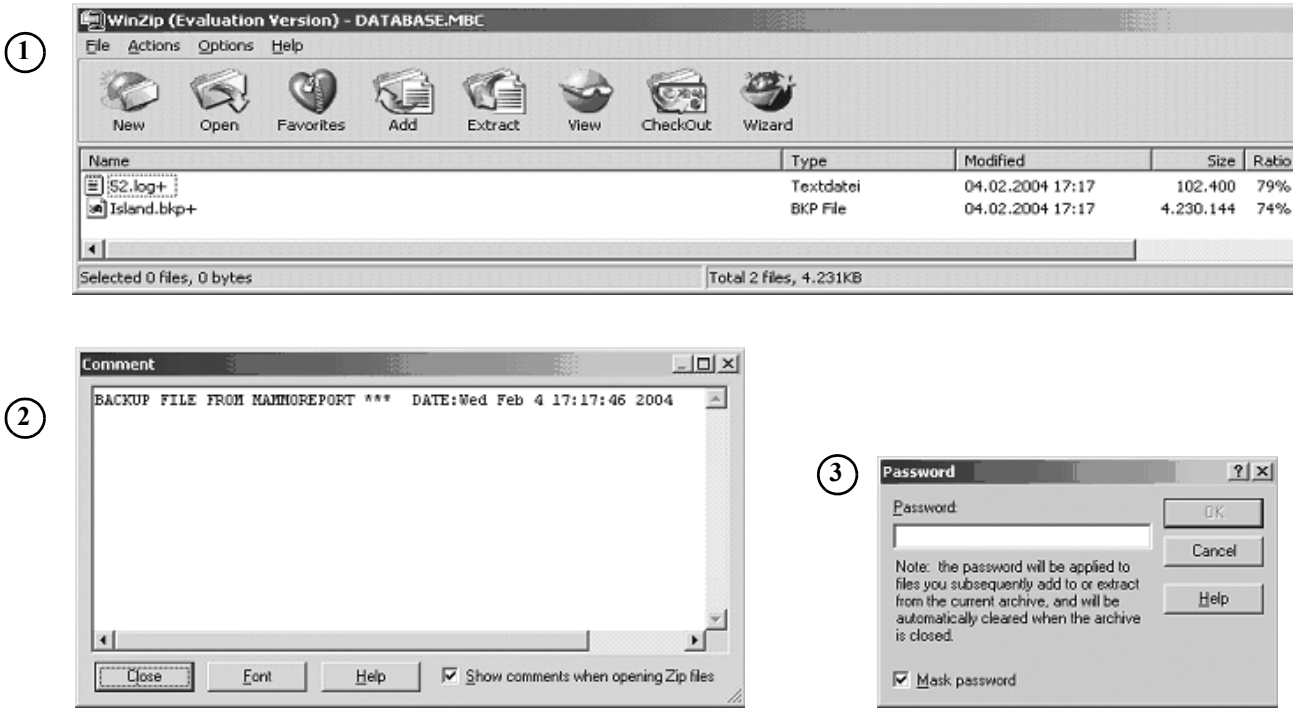
1
WinZip (Evaluation Version) - DATABASE.MBC
File Actions Options Help
New Open Favorites Add Extract View CheckOut Wizard
Name Type Modified Size Ratio
S2.log+ Textdatei 04.02.2004 17:17 102.400 79%
Island.bkp+ BKP File 04.02.2004 17:17 4.230.144 74%
Selected 0 files, 0 bytes
Total 2 files, 4.231KB
2
Comment
BACKUP FILE FROM MAMMOREPORT *** DATE:Wed Feb 4 17:17:46 2004
Close Font Help Show comments when opening Zip files
3
Password
Password
OK
Cancel
Help
Note: the password will be applied to files you subsequently add to or extract from the current archive, and will be automatically cleared when the archive is closed.
Mask password

Fig. 27 Winzip, Comment and Password Window

14. Select the directory from disk F:\ where the old backup is located. A window pops up.
15. Enter data as shown in Fig. 21
16. Select Restore and accept the message (Fig. 22) by clicking Yes.
17. After a successful restore the message (Fig. 23) appears.
18. Close the window.
19. Run the program E:\Migrator.exe.
20. The checkbox "Import into SQL Server " is automatically checked. Click on Start.
21. The Migrator displays messages "Cannot double insert into table...." (see Fig. 26) many times for data that were not deleted.
22. Wait until message "Requested processing done" is displayed in the Log Window.
23. Quit Migrator.

Step 17: Disable SQL Database

1. Click on **Start** button and select **Programs >Centura> SQLBase 7.6.1> SQLBaseServer Monitor.**
2. Click on the plus sign in front of **SQLBase Server** and select **Service** by clicking the plus sign.
3. Select Startup Mode (Automatic), and change with right mouse from **Automatic** to **Disabled.**

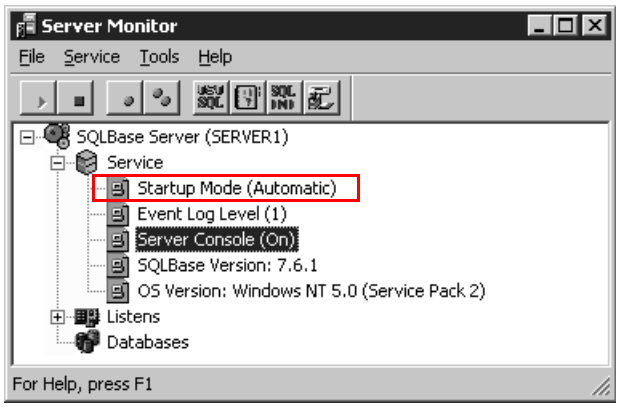

Fig. 28 Server Monitor Startup Mode (Automatic)

4. Close Server Monitor.
5. Check Access to SQL Server database by running shortcut **CheckODBC SQL Server**.

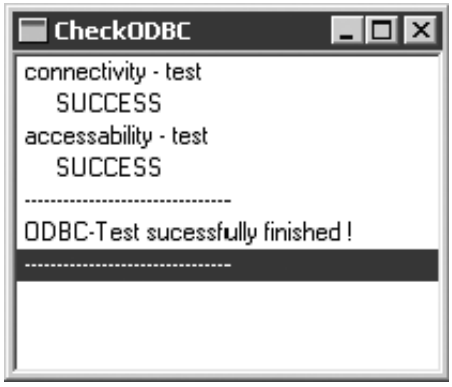

Fig. 29 Check: Access to new database

Step 18: Complete the Upgrade

1. Rename **E:\lightbox.ini** to **E:\lightbox_backup.ini**.

1. Copy the following directories from **F:\backup** to **E:**
   - UserPrefs
   - Reports
   - Miniaturen

2. Copy the following files from **F:\backup** to **E:**
   - licenses.dat
   - lightbox.ini
   - IgnorePatientOrientation.ini
   - DicomMediator.ini

3. Confirm Overwrite warning message with “Yes to all”.

4. Check that directory F:\DICOMIMPORT exists. Run batch **E:\Scripts\ImportDrocPatients.bat**

5. The Script window opens

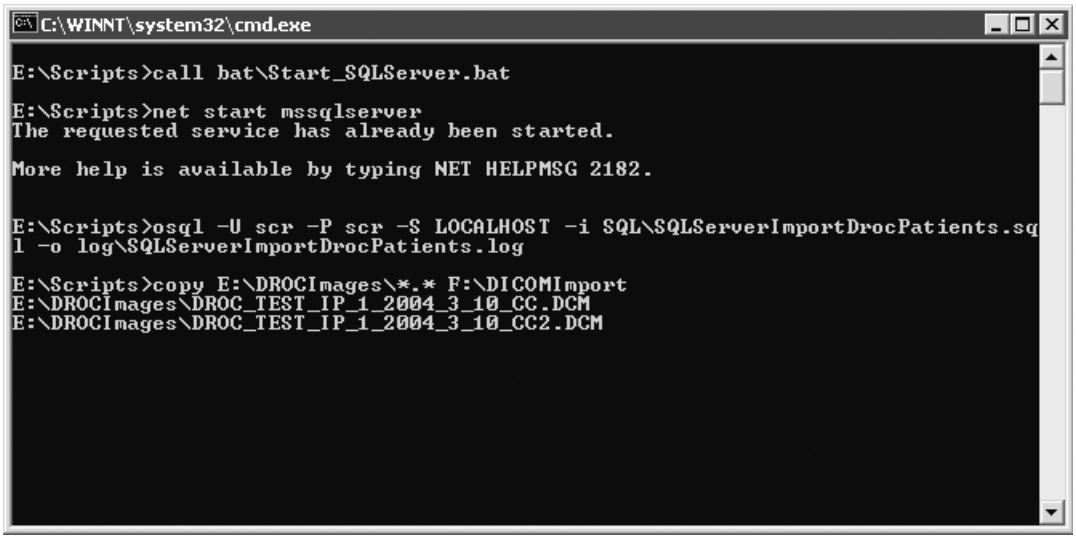

Fig. 30 Script running

6. After running the script successfully the window should be displayed as follows:

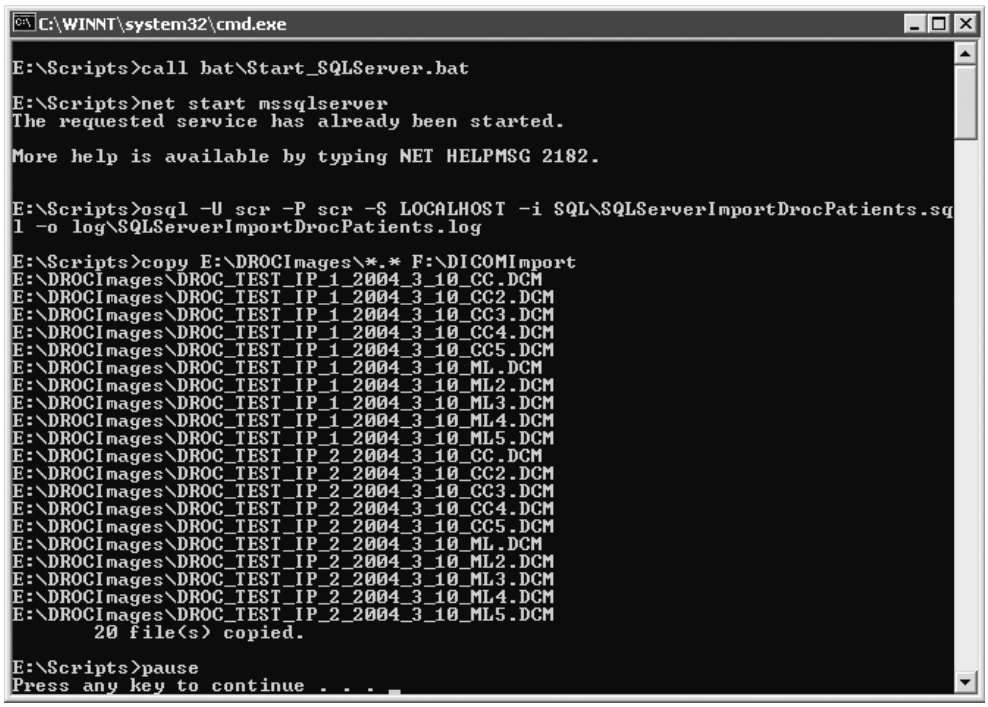

Fig. 31 Running the script - successfully

7. Press any key to continue.

- If an error occured during running the script - it is possible that F:\DICOMIMPORT does not exist - the following window is displayed:

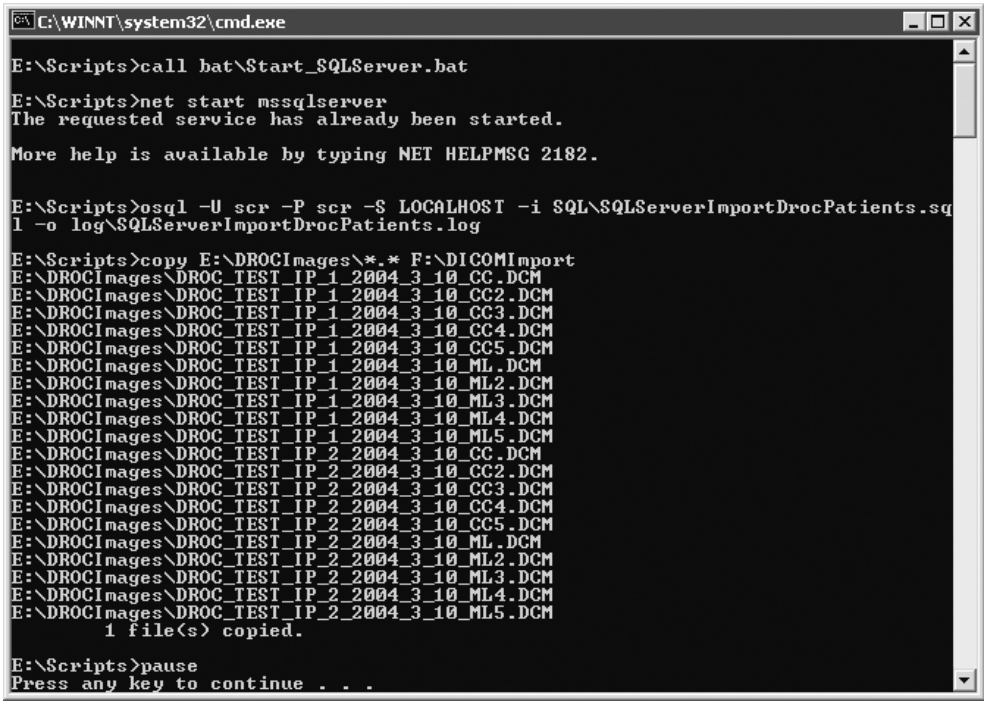

Fig. 32 Running the script - with an error

Now do the following steps:

1. Delete the file **F:\DICOMIMPORT**.
2. Create directory **F:\DICOMIMPORT** and run again the script
   or
   copy manually **E:\DROCImages** to **F:** and rename F:\DROCImages to **F:\DICOMIMPORT**

Step 19: Check Language settings

If the customer gets a German, French, Swedish or Spanish keyboard, change the keyboard settings accordingly. Use Start - Settings - Control Panel and therein Keyboards:

- US International keyboard (default): “Input Locales: English (United States), Keyboard Layout: US-International”
- German keyboard: “Input Locales: German (Germany), keyboard Layout: German”
- French keyboard: “Input Locales: French (France), keyboard Layout: French”
- Swedish keyboard: “Input Locales: Swedish (Sweden), keyboard Layout: Swedish”
- Spanish keyboard: “Input Locales: Spanish (Spain), keyboard Layout: Spanish”

Step 20: Settings for user SCR

1. In Windows **Start Menu** ⇒ Settings ⇒ Control Panel ⇒ Users and Passwords, Administrator is selected by default.
2. Click into checkbox **Users must enter a user name and password to enter this computer** to select a user name.
3. Select user **SCR** as default and deselect checkbox **Users must enter a user name and password to enter this computer**. SCR will then be set as new default user.
4. Confirm with **OK**. The password of the SCR-user "service" is necessary. Then confirm with OK. Then close window with OK.
5. Disconnect the LCD monitor.
6. Reboot the system.

NOTE **Make sure before reboot or start of shortcut MammoReport that all programs, also Windows explorer are closed.**

Step 21: Displaying all Service Images

1. MammoReport starts, and the progress window is shown.
2. Below a second progress window appears (importing the DROC images).

Fig. 33 Progress window for Import After Restore

3. Wait until all processes are finished, and the MammoReport background image and Login window are displayed.
4. Login as user **service** and select **Administration**. All 8 service patients and the 2 Droc Patients should be available.
5. Sort patient list by name.
6. Select the first 4 patients in the patient list and click View Now.
7. The number of images to be displayed should be:
   - AAPM_TG18, anatom (4 images)
   - AAPM_TG18, glare (3 images)
   - AAPM_TG18, lumin (4 images)
   - AAPM_TG18, multi (3 images)
8. Wait for display of all images (can take about 5 minutes).
9. Exit **Reviewing**, enter Administration module and select the remaining 4 patients
10. Click **View Now** and wait for all images to be displayed.
11. The number of images to be displ ayed should be:
    - AAPM_TG18, noise (1 images)
    - AAPM_TG18, resol (14 images)
    - Patient 01, Null eins (8 images)
    - SMPTE, SMPTE (8 images)
12. Quit Reviewing.

Step 22: DICOM Settings

1. Select **Administration**.
2. Click on **DICOM** tabcard.
3. Check all Settings displayed in **This Workstation** as written in **Step 1: Prerequisites**.

NOTE	**The dmax value of Fuji printer has to be changed to 350 according to Tab. 2., if a Fuji Printer is used at customer site**

If DICOM Settings shall be changed or modified follow the instructions below. If not, continue with Step 23: Display Radiologist Images.

NOTE	**Only service users have access to DICOM settings.** **When entering DICOM AET titles always use capital letters.**

DICOM Tab

To access DICOM settings follow the steps below:

1. Log in to MammoReport^{Plus} as user **service**.
2. Select the **Administration** module
3. Select **DICOM** Tab. The DICOM Setup tab displays.

MammoReport^{Plus} comprises two user interfaces for the DICOM settings:

- **Setup Tab**
  The **Setup** tab provides entries to configure various DICOM entities like the MammoReport^{Plus} workstation (SCR-System) itself and the connectivity to a PACS and DICOM Printer.
- **Printer Tab**
  The **Printer** tab is used to configure various Printer types with values for exactly one medium and matrix size.

The Setup Tab

The **DICOM Setup** interface comprises four group boxes to configure the settings for various entities:

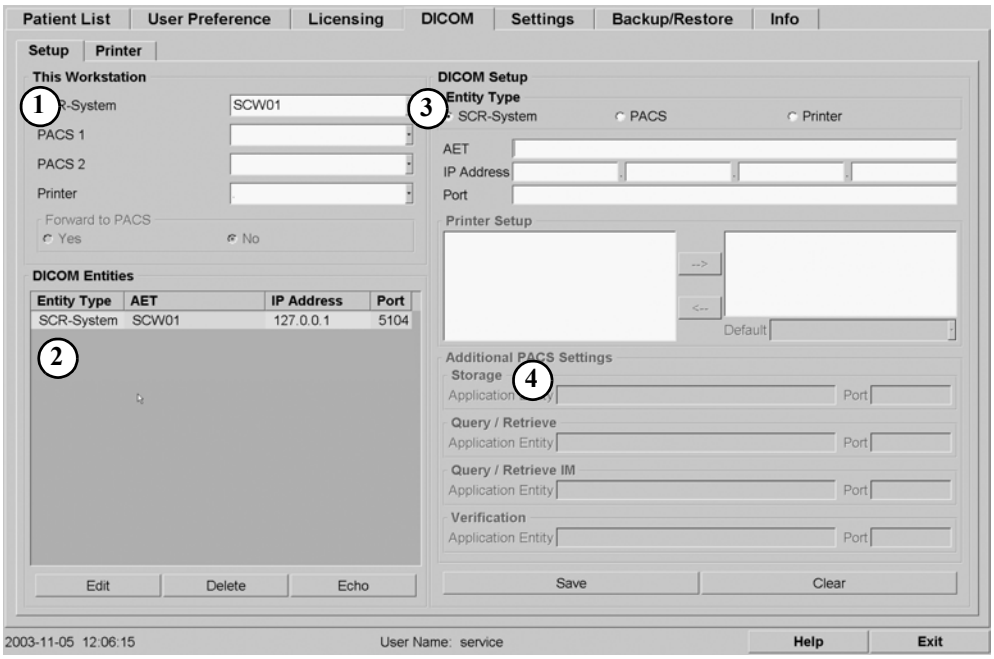

Fig. 34 The DICOM Setup tab.

1. **This Workstation** - displays all connected entities of this workstation (SCR-System, PACS, Printer).
2. **DICOM Entities** - displays in alphabetical order the connected entity types and provides tools for editing and deleting entities, and sending an echo to an entity.
3. **DICOM Setup** - contains entries to configure an entity type by AET, IP Address and Port. All fields have to be filled out before a new entity can be saved and added to the list on the left hand side.
4. **Additional PACS Settings** (vendor dependent) - contains entries to support configuring multiple entities and ports for Storage and Query/Retrieve. Information can be found in the PACS documentation.

NOTE	**Only the MagicStore PACS uses a Query/Retrieve IM port to query/ retrieve images. These settings have to be filled in.**

The Printer tab

The **Printer** tab contains three group boxes:

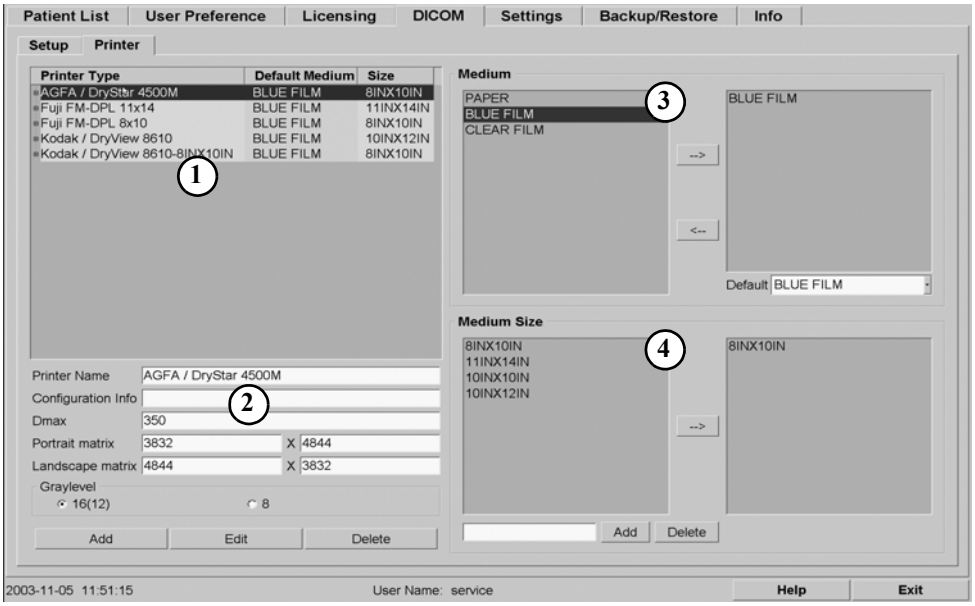

Fig. 35 The DICOM Printer tab

NOTE **To edit printer settings refer to "Editing a printer" on Seite 1 - 34.**

1. The **Printer** type box displays printers with Printer type, Default Medium and Medium Size.
2. Below the list text fields display information about a selected printer from the list. These entries can be used to edit existing values, and to add a new type to the list above.
   The tool bar below contains three buttons to add, edit or delete a printer type.
3. The **Medium** box displays two lists.
   The list to the left list contains available mediums like Paper, Blue Film or Clear Film. The list to the right is used to assign default mediums to the selected printer.
   Use the arrow buttons to assign (or remove) a medium to (from) a selected printer.
4. The **Medium Size** box displays two lists.
   The list to the left contains available mediums sizes.The list to the right is used to assign exactly one medium size for the selected printer.
   Use the arrow button to assign a medium size to a selected printer. An existing value will always be replaced.
   There are two buttons to add new medium sizes and to delete medium sizes.

Configuring MammoReport^{Plus}

NOTE	**The first AET to be added is the MammoReport^{Plus} itself.**

To add MammoReport^{Plus} to the Entity Type list follow the steps below:

1. On **Setup** tab, DICOM Entities group box, select entity type SCR-System in the Entity Type list.
2. Click **Edit** button.
3. In DICOM Setup group box, select **SCR-System** radio button.
4. Fill out the text fields for **AET**, **IP Address** and **Port**.
5. When all parameters are set, click **Save** button.
   Result: The entity is listed in **DICOM Entities** group, sorted by type.

Configuring a PACS

The MammoReport^{Plus} workstation offers no PACS entry by default.

In the first step add the default values in group box DICOM Setup so they reflect the existing PACS.

To add a PACS to the Entity Type list follow the steps below:

1. Select in group box DICOM Setup Entity Type the radio button **PACS**.
2. Fill out the text fields in DICOM Setup for **AET**, **IP Address** and **Port**.
3. When all parameters are set, click **Save**.
   Result: The entity is listed in the DICOM Entities group.

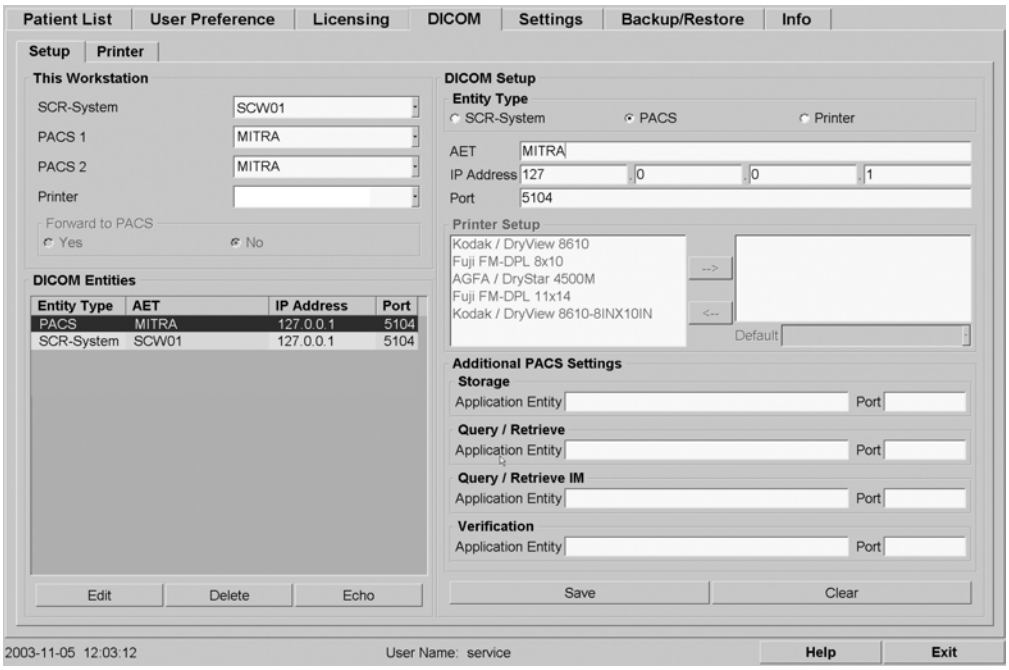

Fig. 36 User Interface for adding, changing and deleting entities.

Configuring a DICOM Printer

After initial installation the Setup Tab contains in the Printer Setup list various printers. Every Printer Type has exactly one medium size, i.e for every medium size the correct matrix size can be specified. Refer also to Tab. 2.

NOTE	**The configuration of the DICOM Printer has to be linear density.**

To add a DICOM Printer to the Entity Type list follow the steps below:

1. On **Setup** tab, DICOM Setup group box, select radio button for **Entity Type** Printer.
2. Select one or more Printers from the Printer Setup list using the right arrow button.
3. Select one of them as default printer.
4. Fill out the text fields for **AET**, **IP Address** and **Port**.
5. When all parameters are set, click **Save** button.
   Result: The Printer is listed in the **DICOM Entities** group, sorted by type.
6. When a radiologist selects the DICOM Print button in Reviewing, the configured DICOM Printer name is fully displayed in the DICOM print window and can be selected.

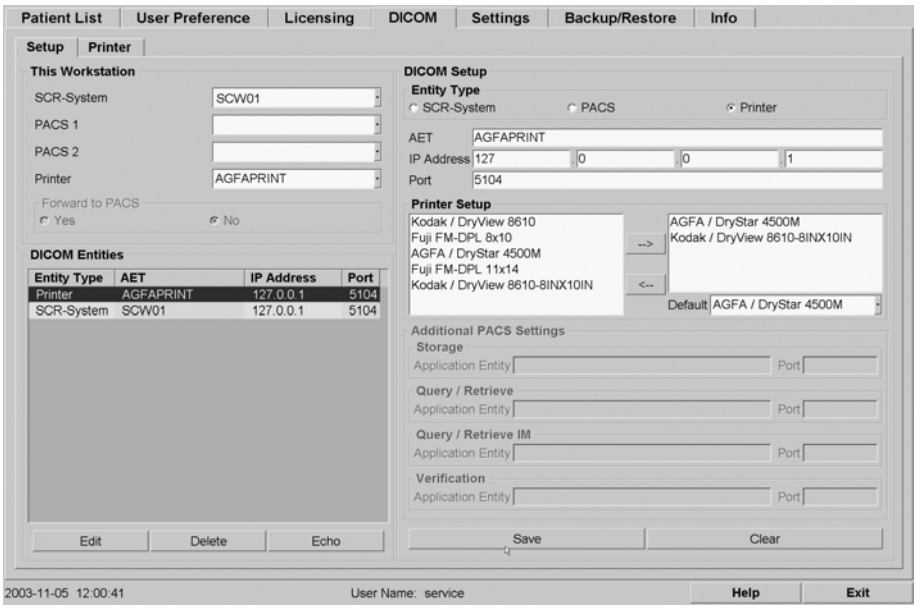

Fig. 37 Add entity type printer.

Checking the Setup Configuration

NOTE	**It is absolutely necessary to run a test after configuration.**

To run a test after the configuration follow the steps below:

1. Select an **Entity Type** in the **DICOM Entities** group.
2. Click **Echo** button.
   Expected result: Message box “Echo successful!” displays

Fig. 38 .Echo successful messages: SCR-System/PACS/Printer (left) and MagicStore PACS (right)

3. Repeat steps 1 and 2 for all entity types in the list.

NOTE	**If echo is unsuccessful the possible causes could be:** **- network settings do not work correctly.** **- permission is denied.** **Repeat configuration procedure.**

Editing entities

To edit an entity follow the steps below:

1. On **Setup** tab, select an entity in the **DICOM Entities** list.
2. Click **Edit** button.
3. Make your changes in the group box **DICOM Setup**.
4. Click **Save** button.

NOTE	**The Clear button clears all text fields for AET, IP Address and Port.**

Deleting entities

To delete an entity follow the steps below:

1. On **Setup** tab, select an entity in the **DICOM Entities** list.
2. Click **Delete** button.
   Result: A message box displays.

Fig. 39 Delete Message for DICOM entities like PACS or Printer

3. Click **OK**.
   Result: The entity is removed from the DICOM Entities list.

NOTE **The SCR Workstation cannot be deleted. At least one SCR-System must be registered.**

Adding Printer Type

To add a new printer to the Printer list follow the steps below:

1. On **Printer** tab, enter printer name in the **Printer name** text field.
2. Enter **Configuration Info** (optional)
3. Enter the printer's **Dmax** value (refer to Tab. 2).
4. Enter desired size (in pixels) in **Portrait matrix** text fields. Width x Height. Refer to Tab. 2.
5. Enter desired size (in pixels) in **Landscape matrix** text fields. Width x Height. Refer to Tab. 2.
6. Select **Graylevel** radio button: 16 or 8. Refer to Tab. 2.
7. Click **Add** button.
   Result: The printer name is displayed in the Printer Type list.
8. Select a Medium from the Medium list.
9. Click right arrow button to assign the medium.
   Result: The selected Medium displays in the list to the right.
10. Repeat steps 2 and 3 to assign more mediums to the selected printer.
11. Select one Medium Size from the list.
12. Click right arrow button to assign the medium size Only one medium size is possible.
    Result: The medium size is displayed in the list to the right as default medium size.

NOTE **To use another medium size add a new printer type, and name it according to medium size.**

Default PrinterValues	Dmax	Matrix	Portrait	Landscape	Graylevel
Kodak DryView 8610	350	10x12	5024x6200	6200x5024	16
AGFA Drystar 4500M	350	8x10	3828x4958	4958x3828	16
AGFA Drystar 4500M	350	10x12	4892x5810	5810x4892	16
Fuji FM-DPL(50mu)	350	8x10	3907x4819	4931x3795	16
Fuji FM-DPL(50mu)	350	11x14	5075 X 6552	6552x4919	16

Tab. 2 Printer settings

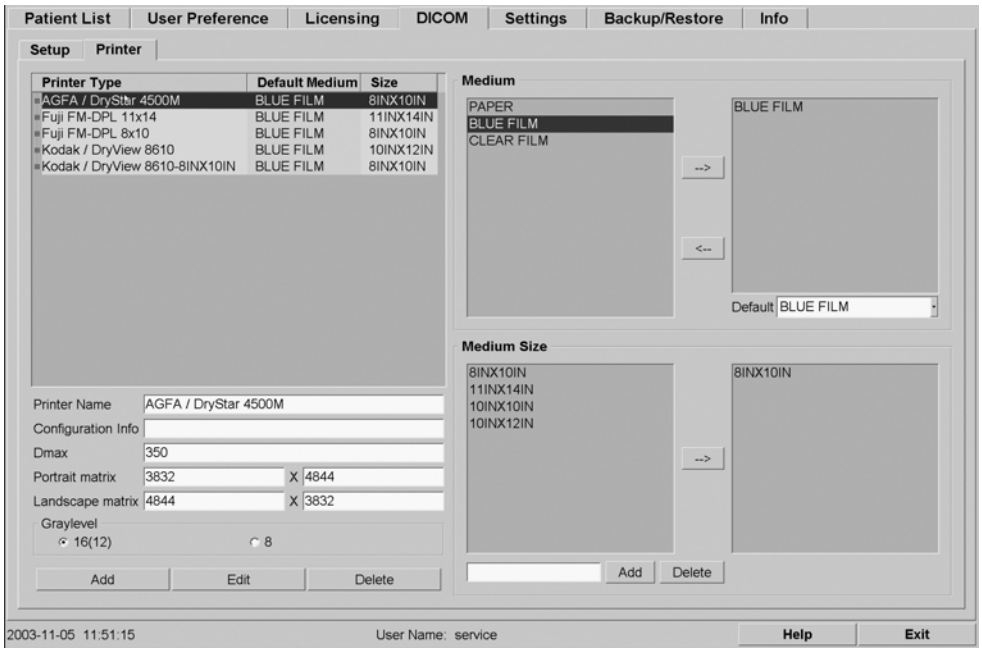

Fig. 40 Printer settings

NOTE **For all available printers (Kodak, Fuji and Agfa) medium “BLUE FILM” is selected.**

NOTE **If the error message “Print failed: ImageBox_N_Set FAILED” is displayed, you may select only one monitor for printing.**

NOTE **Only Fuji Printer with Print Server can handle subnets. If a Fuji Printer without Print server is used, no subset must be present.**

Viewing Printer Settings

To view printer medium settings follow the steps below:

1. On **Printer** tab, select printer in the Printer list.
2. Click the plus sign in front of the printer name.
   Result: The Printer Type folder expands .

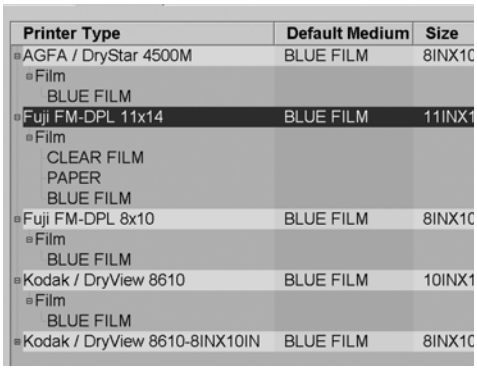

Fig. 41 DICOM printer medium settings.

Editing a printer

A selected printer is highlighted in **Printer Type** list, and its corresponding values are displayed in the text fields below the list, see Fig. 40.

To edit a printer follow the steps below:

1. On **Printer** tab, select a printer in the **Printer Type** list.
2. Make your changes in the text fields (e.g. change the Dmax value) and /or in the medium and Medium Size list.
3. Click **Edit** button to assign new settings to the selected printer.

NOTE	**Changes to medium and medium size are immediately assigned to the selected printer.**

Deleting a printer

To delete a printer, follow the steps below:

1. On **Printer** tab, select a printer in the **Printer Type** list.
2. Click **Delete** button.
   Result: A message displays.

Fig. 42 Message box

3. Click **OK**.
   Result: The printer will be removed from the Printer Type list.
4. If you try to delete a type from the printer type list that is configured as DICOM printer, the following message box displays.

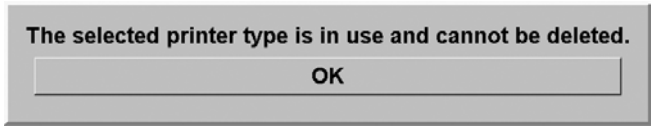

Fig. 43 Message box if Printer Type is used as DICOM printer

Adding/Deleting Medium Sizes

Below the Medium size box a text field is used to fill in new medium sizes. Aside the Add and Delete button are located.

To add a new medium size follow the steps below:

1. Fill in size values into the text field. Click **Add** button.
   Result: The new medium size is displayed in the **Medium Size** box.
2. Select medium size in the **Medium Size** box.
   Click the **Delete** button.
   Result: The medium size is removed from the **Medium Size** box.

Step 23: Display Radiologist Images

The following step is necessary to adjust the settings at the Acquisition Workstation.

1. Login as user **application**.
2. Select **Administration**.
3. In the patient list select the two patients:
   - DROC_TEST_IP,1 (10 images, 2 per study)
   - DROC_TEST_IP, 2 (10 images, 2 per study)
4. Check that both patients and all corresponding images are available.
5. The image comment includes the values for Contrast (C) and Density (D).
6. Adjust the Acquisition Workstation according to these parameters.
7. Log in as **service** and **Exit to Windows.**

Step 24: Recovery CD

A backup of system specific data, such as customer configuration entries, network nodes and AET:s is mandatory after software updates or system adjustment steps.

After setting all configurations successfully, an image backup of the system disk is created on CD-Rs.

Since the High resolution monitors are unable to display VGA graphics, the instructions in this chapter are monitored on the service monitor.

NOTE	**Make sure before reboot or start of watchdog that all programs, also windows explorer are closed.**

To configure the Ghost program follow the steps below:

1. Connect and turn on the LCD monitor.
2. Insert the bootable floppy disk containing the Symantec Ghost program into the floppy drive.
3. Insert blank CD-R no. 1 into the CD drive.
4. Reboot workstation. Ghost will start automatically.
5. Select **OK** in the About Symantec Ghost window.
6. In the Ghost program menu, select **Options**.
7. On the **Span/CRC** tab, check the **Spanning** check box.
8. On the **Image/Tape** tab, select **Default** radio button.

9. On the **HDD access** tab, check the boxes for **-ffx**, **-ffi** and **-ffs**, see figure below.

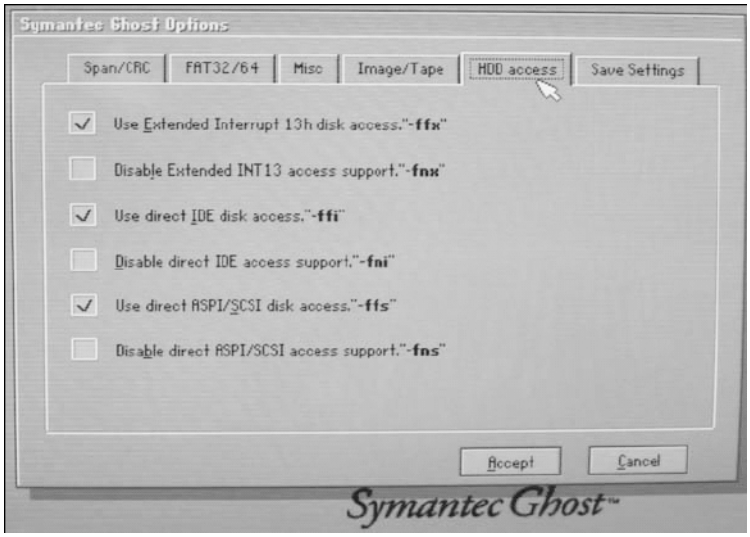

Fig. 44 Symantec Ghost options dialog box.

10. On the **Save Settings** tab, click **Accept** button.
11. Continue with **Creating the disks**

Creating CD(s)

To create the recovery disks follow the steps below:

1. In the Ghost program menu, select **Local** ⇒ **Disk** ⇒ **To Image**.
2. Select source drive: **Drive 1**. Click **OK** button.
3. Select drive to store the image: **CD-RW drive**.
4. Enter image name in the **File name** text field, or accept default file name provided by Ghost.
5. Click **Save** button.
6. In the **Compress Image** dialog box, select **High**.
7. When asked to copy a bootable floppy to CD-R, select **Yes**.
8. Proceed with drive backup to CD-R: **Yes**.
9. A dialog box containing a Warning displays and asks if you want to continue, select **Yes**.
   Result: The copying process starts and can be monitored on the **Progress Indicator**.
10. If storage space on first CD is not sufficient, Ghost asks for a second CD-R. Insert blank CD-R no. 2 when prompted to do so. Click **OK**.
11. When finished, the **Dump complete** message box displays. Click **Continue** button.
12. In the Ghost program menu, select **Quit**.
    Result: A dialog box displays. After removal of the floppy disk and the CD-R, select **Yes** in the dialog box.

NOTE

Mark the created CD(s) with date created and software version. If the result is two CD(s) label them with CD1 and CD2.

The CD(s) shall be stored together with the Technical Manual.

NOTE

Using this procedure it is not possible to backup patient images. You can only save the customized system settings to CD-R.

Step 25: Change BIOS Settings

NOTE

Disable Boot settings from Removable Media after making a recovery CD of new installation.

BIOS Setting	from	to	for
Start from IDE CD-ROM:	Enabled	Disabled	Installation from CD-ROM drive

Tab. 3 Boot settings from Removable Media

1. Turn off and disconnect the LCD monitor again.

Final Check

Already done in Step 21: Displaying all Service Images.

Customer Information

n.a.

Final Work Steps

- Update the system documentation.
  Update the revision level and the technical documentation.
  Fill out, and if needed, make a copy of the attached "Completion Protocol/ Update Completion Form" and file it in the corresponding System Binder/User Handbook.
- This update includes an IVK.
  - Changes in the IVK structure must be reported to the management system to correct the installed volume.
- Updates that have already been completed prior to publication of this SI must also be reported.
- The update is reported as follows:
  - The modification reply report has to be prepared by authorized personnel using an application on the Intranet.
- File the Update instruction in the corresponding System Binder/Technical Manual.

Changes to Previous Version

Page 3: Deleted Point 2 because solved with former UI.

Completion Protocol

The update with the number **SP018/04/I** has been completed.

Material number: .....

Serial number: .....

Customer: ..... Functional Location: .....

Customer No.: .....

Name (CSE): ..... Telephone: .....

Country: ..... Location: .....

Date: ..... Signature: .....

Remark: .....

.....

NOTE

After completing the update, make a copy of this page, fill it out and file it in the corresponding System Binder/User Handbook.

This page intentionally left blank.

Appendix

Part 1: Setup of New Database

In case the customer does not want to migrate his existing database he can set up a new database instead of Step 15: Migration of Database.

Run from **E:\Scripts** the following files in the given order:

A. **Insert default Printer**
- run ImportDefaultPrinter.bat, then check log file

B. **Insert Demo Patients**
- run ImportDemoPatients.bat, then check log file

C. **Insert Demo Patients**
- run ImportDemoPatients.bat, then check log file

A: Insert Default data: Entities and User Rights

1. Run batch E:\Scripts\ImportEntitiesUserRights.bat
2. Press any key when asked for.
3. Check the log file in E:\Scripts\Log\ "OSQL_SQLServerImportEntitiesUserRights.log", that it contains

```
1> 2> 3> 4> 1> 2> 3> (1 row affected)
1> 2> (1 row affected)
1> 2> (1 row affected)
1> 2> (1 row affected)
1> 2> (1 row affected)
1> 2> 3> (1 row affected)
1> 2> (1 row affected)
1> 2> (1 row affected)
1> 2> (1 row affected)
1> 2> (1 row affected)
1> 2> (1 row affected)
1> 2> (1 row affected)
1> 2> (1 row affected)
1> 2> (1 row affected)
1> 2> 3> 4> 5> (1 row affected)
1> 2> (1 row affected)
1> 2> 3> (1 row affected)
1> 2> 3> (1 row affected)
1> 2> (1 row affected)
1> 2> (1 row affected)
1> 2> (1 row affected)
1> 2> 3> (1 row affected)
1> 2>
```

NOTE

If an error message appears in log file, the data were already in the database, e.g. the script was run twice - or all other steps were not performed correctly. Repeat from Part 1. Double entries are not overwritten!

```
1> 2> 3> 4> 1> 2> 3> Msg 2627,Level 14, State 1, Server <system-
name>,Line 1
Violation of PRIMARY KEY constraint 'PK__usergroup__1273C1CD'. Cannot
insert duplicate key in object 'usergroup'.
The statement has been terminated.
```

B: Insert Default Printer

1. Run batch E:\Scripts\ImportdefaultPrinters.bat
2. Press any key when asked for.
3. Check the log file in E:\Scripts\Log\ "ImportDefaultPrinters.log", that it contains

```
1> 2> 1> 2> 3> (1 row affected)
1> 2> (1 row affected)
1> 2> (1 row affected)
1> 2> 3> 4> (1 row affected)
1> 2> (1 row affected)
1> 2> (1 row affected)
1> 2> (1 row affected)
1> 2> 3> 4> (1 row affected)
1> 2> (1 row affected)
1> 2> (1 row affected)
1> 2> (1 row affected)
1> 2> (1 row affected)
1> 2> 3> 4> (1 row affected)
1> 2> (1 row affected)
1> 2> (1 row affected)
1> 2> (1 row affected)
1> 2> (1 row affected)
1> 2> 3> 4> 5> 6> 7> 8> 9> 10>
```

NOTE **If an error message appears in log file, these data were already in the database (double entries are not overwritten). Repeat Part 1.**

```
1> 2> 1> 2> 3> Msg 2627, Level 14, State 1, Server <sysname>, Line 1
Violation of PRIMARY KEY constraint 'PK__printerart__023D5A04'.
Cannot insert duplicate key in object 'printerart'.
The statement has been terminated.
```

C: Insert Demo Patients

1. Run batch E:\Scripts\ImportDemoPatients.bat
2. Press any key when asked for.
3. Check the log file in E:\Scripts\Log\ "OSQL_ImportDemoPatients.log", that it contains

```
1> 2> 1> 2> 3> (1 row affected)
1> 2> (1 row affected)
1> 2> (1 row affected)
1> 2> 3> 4> (1 row affected)
1> 2> (1 row affected)
1> 2> (1 row affected)
```

```
1> 2> (1 row affected)
1> 2> 3> 4> (1 row affected)
1> 2> (1 row affected)
1> 2> (1 row affected)
1> 2> (1 row affected)
1> 2> (1 row affected)
1> 2> 3> 4> (1 row affected)
1> 2> (1 row affected)
1> 2> (1 row affected)
1> 2> (1 row affected)
1> 2> (1 row affected)
1> 2> 3> 4> 5> 6> 7> 8> 9> 10>
```

NOTE	**If an error message appears in log file, these data were already in the database (double entries are not overwritten). Repeat Part 1.**

```
1> 2> 1> 2> 3> Msg 2627, Level 14, State 1, Server <sysname>, Line 1
Violation of PRIMARY KEY constraint '.....'. Cannot
insert duplicate key in object '....'.
The statement has been terminated.
```

Part 2: Creation of New Database Failed

If creation failed perform the following mandatory order of steps:

A. Run DropDatabase.bat

B. Run CreateDatabase.bat

C. Run ImportEntitiesUserRights.bat (refer to A in Part 1)

D. Run ImportDefaultPrinter.bat (refer to B in Part 1)

E. Run ImportDemoPatients.bat (refer to C in Part 1)

A: Drop the old Database

1. Run batch E:\Scripts\DropDatabase.bat
2. Enter the password "BreastCare" when the batch asks for
3. Press any key when asked for.
4. Check the log file in E:\Scripts\Log\"OSQL_DropDatabase.log", that it contains

```
1> 2> Deleting database file
'C:\MSSQLSERVER\DATA\MSSQL\Data\faroer_log.LDF'.
Deleting database file 'C:\MSSQLSERVER\DATA\MSSQL\Data\faroer.mdf'.
1>
```

NOTE	**If the following error message appears in log file, you might have the MSDE Manager open. Close all instances that access your database and perform Part 2, Step A again.**

```
1> 2> Msg 3702, Level 16, State 4, Server BEGONIA, Line 1
Cannot drop the database 'faroer' because it is currently in use.
1> \
```

NOTE **If the following error message appears in log file, you have entered the wrong password. Perform Part 2, Step A again.**

```
Login failed for user 'sa'.
```

B: Create the database tables

1. Run batch E:\Scripts\CreateDatabase.bat
2. Press any key when asked for.
3. Check the log file in E:\Scripts\Log\"OSQL_CreateDatabase.log", that it contains

```
1> 2> The CREATE DATABASE process is allocating 0.63 MB on disk
'faroer'.
The CREATE DATABASE process is allocating 0.49 MB on disk
'faroer_log'.
1>
```

NOTE **If the following message appears in log file, the tables were already created - you may repeat from beginning of Part 2 (the drop was not processed).**

```
1> 2> Msg 1801, Level 16, State 3, Server <systemname>, Line 1
Database 'faroer' already exists.
1>
```

Then run steps A to C as described in section Part 1.

Part 3: BIOS Settings (W8000)

File			
Parameter	**Parameter in Submenu**	**Setting**	**Check**
System Information			
	Product Name	Compaq Workstation W8000	☐ Yes ☐ No
	Processor Type	Intel ® Xeon™ processor 2200 MHz	☐ Yes ☐ No
	Processor Speed	2200/400 MHz	☐ Yes ☐ No
	Processor 0 Stepping	F24	☐ Yes ☐ No
	Processor 0 Stepping	F24	☐ Yes ☐ No
	Cache Size (L1/L2)	8/512 KB	☐ Yes ☐ No
	Memory Size	2560 MB	☐ Yes ☐ No
	System ROM	686P6 v1.17	☐ Yes ☐ No
	Chassis Serial Number	Device dependent	
	Asset Tracking Number	Device dependent	
About			
	System BIOS and Setup Utility Copyright 1982-2001 Compaq Computer Corpo-ration All Rights Reserved Boot Integrity Services Copyright 1998-1999 Intel Corporation All Rights Reserved		☐ Yes ☐ No
Set Time and Date			
	Time (hh:mm)	actual time	☐ Yes ☐ No
	Date (mm/dd/yyyy)	actual date	☐ Yes ☐ No
Save to Disk			
Restore from Disk			
Set Defaults and Exit			
Ignore Changes and Exit			
Save Changes and Exit			

Storage			
Parameter	**Parameter in Submenu**	**Setting**	**Check**
Device Configuration			
	CDROM	IDE Secondary 1 Plextor CD-R PX-W4012A	☐ Yes ☐ No
	Diskette	Legacy Diskette 0 3.5" 1.44 MB	☐ Yes ☐ No
Storage Options			
	Removable Media Boot	Enable*[1]	☐ Yes ☐ No
	Removable Media Write	Enable	☐ Yes ☐ No
	Primary IDE Controller	Enable	☐ Yes ☐ No
	Secondary IDE Controller	Enable	☐ Yes ☐ No
	Diskette MBR Validation	Enable	☐ Yes ☐ No
Boot Order			
	IDE CD-ROM /	First	☐ Yes ☐ No
	Diskette Drive (A:)	Second	☐ Yes ☐ No
	Hard Drive (C:)	Third	☐ Yes ☐ No
Controller Order			
	Integrated IDE	First	☐ Yes ☐ No
	AIC-7899,A:00	Second	☐ Yes ☐ No
	AIC-7899,A:01	Third	☐ Yes ☐ No
	AIC-7899,A:02	Fourth	☐ Yes ☐ No
	AIC-7899,A:03 *[2]	Fifth	☐ Yes ☐ No
	AIC-7899,A:04 *[2]	Sixth	☐ Yes ☐ No
SCSI Narrow Termination			
	SCSI Narrow Termination	Enable	☐ Yes ☐ No

1. Service engineer has to set to “Disable” after start-up has been finished at customer site.
2. These entries are only available if the system has four data disks.

Security			
Parameter	**Parameter in Submenu**	**Setting**	**Check**
Setup Password			
Power-On Password			
Smart Cover			
	Cover Removal Sensor	Disable	☐ Yes ☐ No
Device Security			
	Serial Port A	Device available	☐ Yes ☐ No
	Serial Port B	Device available	☐ Yes ☐ No
	Parallel Port	Device available	☐ Yes ☐ No

	USB Port	Device available	☐ Yes ☐ No
	System Audio	Device available	☐ Yes ☐ No
	Network Controller	Device available	☐ Yes ☐ No
	SCSI Controller	Device available	☐ Yes ☐ No
Network Service Boot			
	Network Service Boot	Disable	☐ Yes ☐ No
System IDs			
	Enter Asset Tag	(e.g.) 8151JFTZ000B	☐ Yes ☐ No
	Enter Ownership Tag	none	☐ Yes ☐ No
	Keyboard	U.S.	☐ Yes ☐ No

Power

Parameter	Parameter in Submenu	Setting	Check
Energy Saver			
	Energy Saver Mode	Disable	☐ Yes ☐ No
	Fan Speed	Automatic	☐ Yes ☐ No

Advanced

Parameter	Parameter in Submenu	Setting	Check
Power-On Options			
	POST Mode	Quick Boot	☐ Yes ☐ No
	POST Messages	Enable	☐ Yes ☐ No
	Safe POST	Enable	☐ Yes ☐ No
	F9 Prompt	Disable	☐ Yes ☐ No
	F10 Prompt	Enable	☐ Yes ☐ No
	F12 Prompt	Disable	☐ Yes ☐ No
	Option ROM Prompt	Enable	☐ Yes ☐ No
	Remote Wakeup Boot Source	Local Hard Drive	☐ Yes ☐ No
	After Power Loss	Off	☐ Yes ☐ No
	UUID	Disable	☐ Yes ☐ No
	POST Delay (in seconds)	None	☐ Yes ☐ No
Onboard Devices			
	Parallel Port	378-37A, IRQ 7	☐ Yes ☐ No
	Serial Port A	3F8-3FF, IRQ 4	☐ Yes ☐ No
	Serial Port B	2F8-2FF, IRQ 3	☐ Yes ☐ No
	Diskette Controller	3F0-3F5, 3F7-3F7, IRQ 6, DMA 2	☐ Yes ☐ No
PCI Devices			
	Compaq IDE controller	Enabled	☐ Yes ☐ No
	Compaq USB controller	IRQ 11	☐ Yes ☐ No
	Compaq USB controller	IRQ 5	☐ Yes ☐ No

	nVidia VGA controller	IRQ 10	☐ Yes ☐ No
	Intel PIC	Enabled	☐ Yes ☐ No
	Compaq Audio device	IRQ 5	☐ Yes ☐ No
	Compaq Ethernet controller	IRQ 10	☐ Yes ☐ No
	Other Display Controller	Enabled	☐ Yes ☐ No
	Other Display Controller	Enabled	☐ Yes ☐ No
	Compaq SCSI controller	IRQ 11	☐ Yes ☐ No
	Compaq SCSI controller	IRQ 5	☐ Yes ☐ No
Bus Options			
	PCI Bus Mastering	Enable	☐ Yes ☐ No
	PCI SERR# Generation	Enable	☐ Yes ☐ No
	PCI VGA Palette Snooping	Disable	☐ Yes ☐ No
Device Options			
	Printer Mode	Bidirectional	☐ Yes ☐ No
	Num Lock State at Power-On	Off	☐ Yes ☐ No
	PME Wakeup Events	Enable	☐ Yes ☐ No
	Processor Cache	Enable	☐ Yes ☐ No
	Hyper Threading	Enable	☐ Yes ☐ No
	AGP Aperture Size	64 MB	☐ Yes ☐ No
	Monitor Tracking	Disable	☐ Yes ☐ No